Dragon, Karen E. (CDC/NIOSH/EID)

From: Cloonan, Terrence K. (CDC/NIOSH/NPPTL)
Sent: Wednesday, May 07, 2008 10:51 AM
To: Dragon, Karen E. (CDC/NIOSH/EID)
Subject: Mr. Rob Pilkington Comments as an IAB Member: Docket 052 Public-Stakeholder Community Category

Attachments: RPilkingtonCover01.JPG; RPilkingtoncmt02.JPG; RPilkingtoncmt03.JPG; RPilkingtoncmt04.JPG; RPilkingtoncmt05.JPG; RPilkingtonBackCover.JPG; RPilkington_endpagewCloonancmt.JPG

Fire service instructor and USN veteran Mr. Rob Pilkington, then of University of Missouri Fire and Rescue Training Institute, provided hand written comments on the draft CBRN SCBA User's Guide Training Aid, dated September 23, 2005: 4 sets of comment pages separate from identification cover page, end page, and back cover page.


RPilkingtonCover01.JPG (2 MB)


RPilkingtoncmt02.JPG (3 MB)


RPilkingtoncmt03.JPG (3 MB)


RPilkingtoncmt04.JPG (2 MB)


RPilkingtoncmt05.JPG (4 MB)


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Rob Pilkington Comments

CBRN SCBA User's Guide

Training Aid

40ct05

September 23, 2005

DRAFT - DO NOT CITE OR QUOTE

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

CDC Workplace Safety and Health NIOSH NPPTL

Step 1 SCBA Label

Verify that the CDC NIOSH CBRN Agent Approved adhesive label is on the SCBA back-frame! If the label is scratched or unreadable, confirmation of CBRN protection should be made with the manufacturer or NIOSH.

CDC Workplace Safety and Health — NIOSH National Institute for Occupational Safety and Health

CBRN Agent Approved

See Instructions for Required Component Part Numbers, Accessories, and Additional Cautions and Limitations of Use

Figure 2. Example of a CDC NIOSH CBRN agent approved adhesive label.

This same style of label may say "Retrofit" if the SCBA was a previously deployed industrial SCBA which was later upgraded to CBRN.

CDC Workplace Safety and Health — NIOSH National Institute for Occupational Safety and Health

CBRN Agent Approved

(Retrofit)

See Instructions for Required Component Part Numbers, Accessories, and Additional Cautions and Limitations of Use

Figure 3. Example of a CDC NIOSH CBRN agent approved retrofit adhesive label.

Step 2 Required Compliance Labels

Verify that your CBRN SCBA is assembled only with the parts listed in the NIOSH matrix-style approval label included with the user instructions.

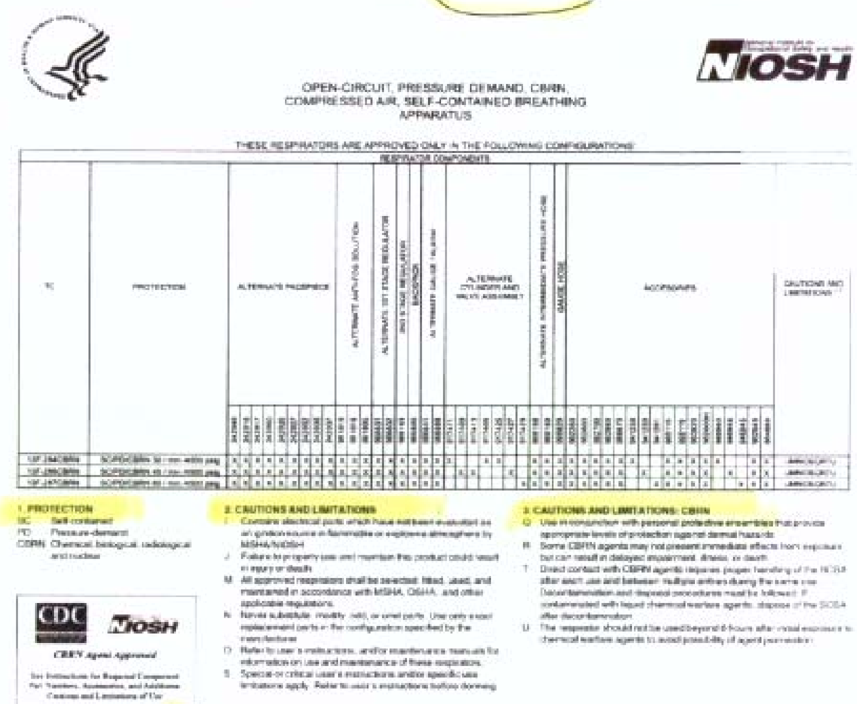


Figure 4. Example of a NIOSH CBRN SCBA matrix-style approval label.

Photo Courtesy of Interspiro

Figure 5. Actual back frame assembly with affixed CDC NIOSH CBRN agent approved label, NIOSH abbreviated harness label and SEI compliance label. All three labels are required for NIOSH CBRN SCBA certification.

Step 3 *NIOSH Cautions and Limitations You Need to Know*

INDUSTRIAL USE

The following NIOSH cautions and limitations appear in Section 2 of the CBRN SCBA matrix-style approval label and apply to industrial use:

I Contains electrical parts, which have not been evaluated as an ignition source in flammable or explosive atmospheres by MSHA/NIOSH.

J Failure to properly use and maintain this product could result in injury or death.

M All approved respirators shall be selected, fitted, used, and maintained in accordance with MSHA, OSHA, and other applicable regulations.

N Never substitute, modify, add, or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.

O Refer to user's instructions, and/or maintenance manuals for information on use and maintenance of these respirators.

S Special or critical user's instructions and/or specific limitations apply. Refer to user's instructions before donning.

Note:
The caution and limitation 'S' will only be on the NIOSH CBRN approval label if specified by the manufacturer in the user instructions. When 'S' appears on the NIOSH approval label, the corresponding Cautions and Limitations that apply under 'S' will be explained in a designated section of the manufacturer's user instructions (UI).

Caution and limitation 'I' will not be present on units which have met the evaluation requirements by MSHA/NIOSH for the criteria stated in 'I'.

CBRN USE

The following NIOSH cautions and limitations appear in Section 3 of the CBRN SCBA matrix-style approval label (see step 2) and along with the industrial use limitations just described, apply specifically to use in CBRN environments.

Q Use in conjunction with personal protective ensembles that provide appropriate levels of protection against dermal hazards.

R Some CBRN agents may not present immediate effects from exposure, but can result in delayed impairment, illness, or death.

T Direct contact with CBRN agents require proper handling of the SCBA after each use and between multiple entries during the same use. Decontamination and disposal procedures must be followed. If contaminated with liquid chemical warfare agents, dispose of the SCBA after decontamination.

U The respirator should not be used beyond six hours after initial exposure to chemical warfare agents to avoid possibility of agent permeation.

Step 4 CBRN Respirator Use Life (CRUL)

CBRN Respirator Use Life (CRUL) is a time value assigned to the specific type of CBRN respirator based on given time values specified in the NIOSH approved cautions and limitations. The CRUL value for a CBRN SCBA is six hours. When a CBRN SCBA is contaminated with a chemical warfare agent (CWA) in vapor, aerosol, or liquid form, it has a limited in-use life of ***six continuous hours***, beginning at the time of an exposure. The time of CWA exposure is determined by using qualitative or quantitative detection methods in the field, or by laboratory analysis of SCBA removed from the site.

Remember:

- The time period is ***six continuous hours***, not a sum of smaller time periods of intermittent use
- At the six-hour mark, the entire SCBA must be decontaminated and disposed of properly
- The SCBA cannot be reused following the six-hour period
- CWA are nerve and blister agents
  - **Nerve agents** include: GA (Tabun), GB (Sarin), GD (Soman), GF (cyclohexyl Sarin), and V-series agents, such as VX
  - **Blister agents** include: H (sulfur mustard), HD (distilled sulfur mustard), nitrogen mustard (HN-1, HN-2 and HN-3) and Lewisite (L, L-1, L-2 and L-3)

Step 6 Facepiece Indications of Concern

You may have donned the SCBA facepiece incorrectly if:

A) The inside of the facepiece is fogged over

Corrections

- Use anti-fog solution
- Redon the facepiece
- Check that the air is fully turned on
- Seek training or re-training on use of HUD
- Low pressure in cylinder -- seek recharge

B) The second stage regulator or air hatch will not operate correctly or mate properly with the facepiece

Corrections

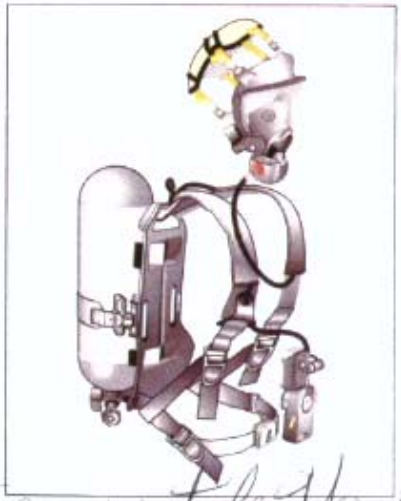
In a clean atmosphere:

- Disconnect and reconnect the regulator per manufacturer instructions or manually open and close the air hatch per manufacturer instructions
- Ensure facepiece matches make and model of regulator/SCBA
- Ensure locking mechanisms are fully seated and not broken
- Ensure debris is not in the facepiece or regular connection ports

C) Heads up display (HUD) is not working

Corrections

- Inspect the HUD for damage
- Ensure the batteries are serviceable
- Reconnect the second stage regulator to the facepiece to ensure that it is correctly attached
- Ensure the electronic connections of the HUD are clean (if applicable)



Step 7 Decontamination

Have a plan for the decontamination (decon) and disposal of contaminated CBRN SCBA.

The six-hour continuous use life concept includes the decontamination process, but not the disposal of CBRN SCBA following use in a chemical warfare agent (CWA) environment. CWA are nerve agents and blister agents (See Step 4).

If known or suspected contamination is present on the CBRN SCBA, quickly conduct gross decontamination using all available systems such as ladder truck decon or other field expedient decon operations using high volume, low pressure clean water, to remove surface CBRN agent contamination. Contain and properly dispose of contaminated run-off wash.

Certain CBRN agents will not be neutralized while others will be hydrolyzed or diluted while being physically washed off equipment surfaces using these techniques. Contamination avoidance, mitigation, and decontamination practices should be planned out and trained for in advance.

Confirmed contaminated SCBA must be discarded in accordance with local regulatory HAZWOPER requirements. If time permits, users should ensure that known or potentially contaminated CBRN SCBA are double bagged in plastic, labeled with the type of contamination, the amount/type of decontamination solution used, and the technique used to conduct gross decontamination. The amount of exposure time for contaminated SCBA and the amount of CBRN contamination are also beneficial information relative to disposal. Local, state, and federal disposal procedures for specific CBRN agent contamination should be followed.

A decontamination method specific to the type of CBRN contamination present may contribute to the efficacy of decontamination operations. Seek decontamination guidance from the local incident commander, state public health department, or lead federal agency onsite.

Detection of CBRN agents on SCBA is situational dependent and subject to qualified quantitative methodology review by the lead federal agency.

From Rob Pilking for 4Oct05 11:32 am

NIOSH

NPPTL

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Appendix A: SCBA Example Schematic

Notes